Winter 2010

CEG 435/635-01: Distributed Computing and Systems

Keke Chen
Wright State University - Main Campus, keke.chen@wright.edu

CEG 435/635
Distributed Computing and Systems

Syllabus

Winter Quarter, 2010

Time/Place: Lecture: 10:25 – 11:40 AM, Tu. & Th., Joshi 193

Instructor: Dr. Keke Chen, Joshi 385
Tel. 937-775-4642, Email: keke.chen@wright.edu
Office Hours: 2:00-4:00 pm, Thursday

Prerequisite: CEG 433 or equivalent.
Expected background: operating system, algorithms, C/C++ programming experience in UNIX or Linux.

Course Description: Study of process coordination, client-server computing, network and distributed operating systems, network and distributed file systems, concurrency control, recovery of distributed transactions, and fault-tolerant computing.

Text Books: *Required*: Coulouris, G., Dollimore, J., and Kindberg, T. , Distributed Systems: Concepts and Design, 4th Edition, Addison Wesley, 2005
References: Tanenbaum, A. and Maarten van Steen, Distributed Systems Principles and Paradigms, 2002: Prentice-Hall, ISBN 0-13-088893-1.

Website: CEG435-635 in WebCT.

Grading: Project assignment – 30 %
Homework – 15%
Midterm Exam – 25%
Final – 30%

A[100,90], B[89,80],C[79,70],D[69,60] F [59,0]
The instructor reserves the right to curve the grades according to the grade distribution.

Lectures:

The following is a tentative schedule.

Week	Reading	Contents
1	Chapter 1 Chapter 2	Welcome and introduction Models of distributed Systems
2	Chapter 4 +papers	IPC Group communication
3	Chapter 5	Remote procedure call Distributed objects and consistency
4	Chapter 13	Transaction processing Concurrency control
5	Chapter 14	Distributed transactions **Midterm Exam**
6	Chapter 11, 12	Event ordering, global states, and time Coordination and agreement
7	Chapter 7 + papers	Distributed file systems Hadoop
8	Chapter 9, 10 + papers	Naming, resource finding, peer-to-peer systems, and publish/subscribe systems
9	Chapter 15 +papers	Failures, fault tolerant services and data replication
10	papers	Data intensive systems Cloud computing
11		**FINAL**